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1 An unusual complication related to 2 acupuncture point catgut embedding 3 treatment of obesity 4 5 6 7

8 2 Yung-Ting Chuang,¹ Tzong-Shiun Li,² Tze-Yi Lin,³ Chih-Jung Hsu¹
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10 ABSTRACT

11 Treatment of obesity by embedding catgut in acupuncture points has a satisfactory
12 therapeutic effect in many patients. Even though results of its effectiveness are mixed,
13 serious complications are rarely reported with this Chinese traditional therapy. Here an
14 unusual complication of the treatment is reported: multiple tender subcutaneous nodules
15 developed where the catgut was embedded over the lower abdomen and both medial
16 thighs 1 month after treatment. Clinicians should be alert to this possible cause of a
17 rather strange presenting physical sign.
18

19 INTRODUCTION

20 Acupuncture point catgut embedding
21 has been using for thousands of years
22 in traditional Chinese medicine for
23 the treatment of several conditions.
24 Although it is regarded as safe, we
25 present an unusual complication that
26 occurred in the treatment of obesity:
27 multiple tender subcutaneous nodules
28 developed over the lower abdomen
29 and both medial thighs 1 month after
30 embedding the catgut.
31
32

33 CASE HISTORY

34 A 27-year-old woman visited our out-
35 patient department on 11 December
36 2010 with multiple itchy and tender
37 skin lesions over the lower abdomen
38 and both medial thighs, as shown in
39 figure 1. She had had three courses of
40 acupuncture point catgut embedding
41 treatment with 7 days intervals between
42 each course. A special needle was used
43 to bury sterile catgut in the acupuncture
44 points on both medial thighs and lower
45 abdomen. An erythematous swelling
46 appeared after the second course and
47 became severe after the third course.
48 She noticed that almost every tender
49 lump developed on sites where cat-
50 gut had previously been embedded.
51 Dermatological examination disclosed
52 multiple, tender, bean-sized erythema-
53 tous nodules with central darkened
54 points in a linear arrangement over
55 both medial thighs and over the lower
56 abdomen figures 1 and 2.
57

58 There was no inguinal lymph-
59 adenopathy or other systemic signs.

Her medical history did not include
any systemic disease and she had
not recently started any new drug.
Our clinical impression was of for-
eign body granuloma, and in order to
establish the diagnosis, and in particu-
lar to rule out iatrogenic infection, we
arranged further investigation.

36 INVESTIGATIONS

37 Skin excisional biopsy and tissue cul-
38 tures for bacteria, fungus and myco-
39 bacterium were performed. The

40 histological report was of degenera-
41 tive, individual or clustered, thread-
42 like eosinophilic foreign material
43 surrounded by localised mixed acute
44 and chronic xanthogranulomatous
45 inflammatory infiltrates with evident
46 foreign body reaction figure 3. Special
47 stains for infectious organisms, such
48 as acid-fast stain, Gram stain, periodic
49 acid-Schiff stain and Grocott's meth-
50 enamine silver stain were all negative.
51 Tissue cultures for bacteria, fungus
52 and mycobacterium were negative.
53

54 Further excisional biopsy was
55 arranged for some large and painful
56 lesions while intralesional steroid was
57 injected into others. Tissue cultures
58 for bacteria, fungus and mycobacte-
59 rium were repeated, and the result
60 was still negative.
61

62 OUTCOME

63 These tender and pruritic nodules on
64 her lower abdomen and both medial
65 thighs regressed spontaneously with
66 postinflammatory hyperpigmenta-
67 tion. The appearance 6 months later is
68 shown in figures 1 and 2.
69

70 DISCUSSION

71 Acupuncture point catgut embed-
72 ding has been used for thousands of
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Figure 1 (Left) Multiple bean-sized tender erythematous subcutaneous nodules with linear distribution on both medial thighs. (Right) The subcutaneous nodules regressed spontaneously, leaving postinflammatory hyperpigmentation 6 months later.

Case report

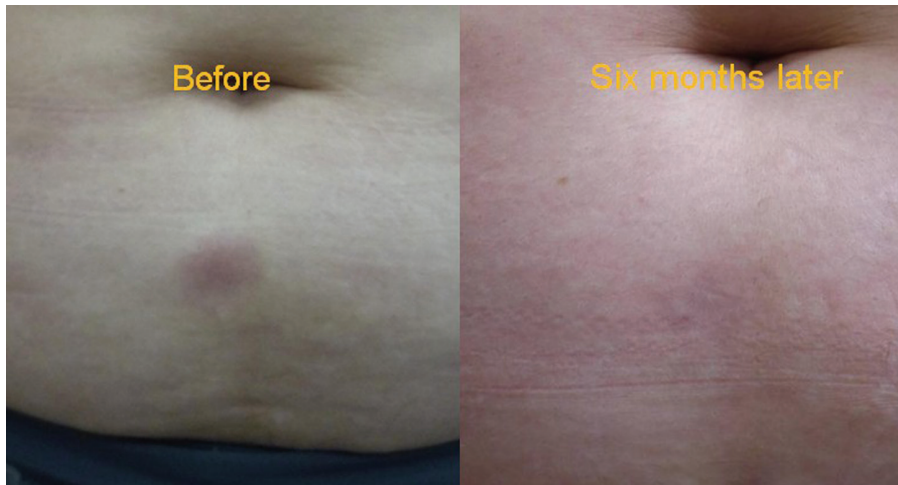


Figure 2 (Left) A bean-sized tender erythematous subcutaneous nodule on the lower abdomen. (Right) This nodule regressed spontaneously leaving mild postinflammatory hyperpigmentation 6 months later.

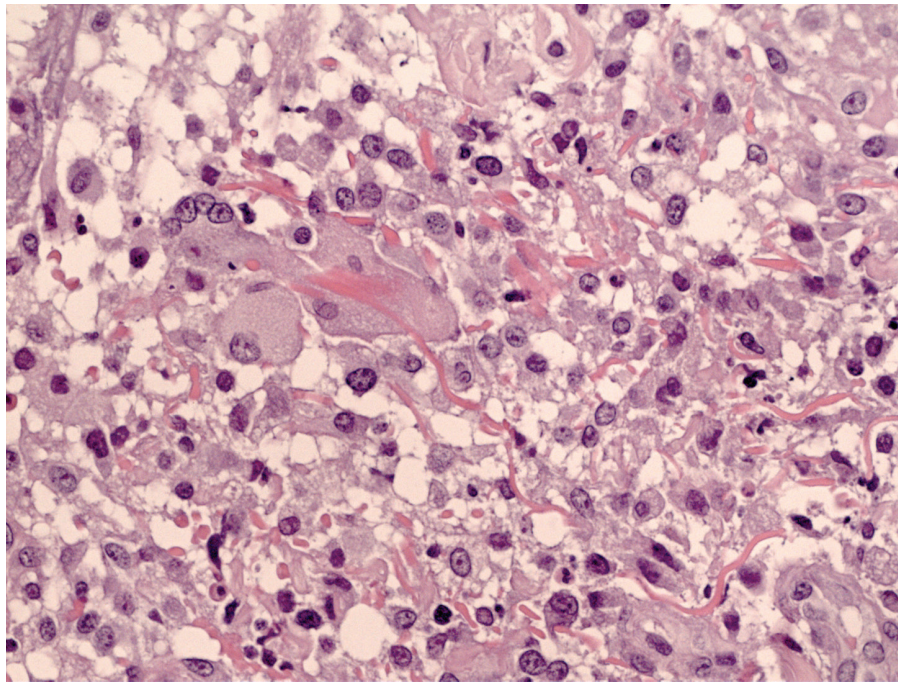


Figure 3 Degenerative, individual or clustered, thread-like eosinophilic foreign material engulfed and surrounded by multinucleate foreign body giant cell. (haematoxylin and eosin stain; original magnification $\times 400$).

years in traditional Chinese medicine for the treatment of perimenopausal syndrome (climacteric syndrome),¹ chronic urticaria,² depressive neurosis, refractory insomnia,³ Alzheimer's disease, obesity, sciatica, ulcerative colitis, facial paralysis and trigeminal neuralgia.

Treatment of obesity with embedding catgut in acupuncture points has a satisfactory therapeutic effect in many patients. Even though results of its

effectiveness are mixed, serious complications are rarely reported with this Chinese traditional therapy. We believe this is the first report of this unusual complication in which multiple tender subcutaneous nodules developed in the sites where catgut had been embedded 1 month previously.

Iatrogenic infection during the procedure must be the first consideration of doctors examining such cases. A differential diagnosis, including foreign body

reaction, panniculitis, or atypical infection, might be considered. Infection is generally the most likely side effect in patients receiving an invasive procedure, and in the absence of systemic upset the possibility of a foreign body reaction cannot be ruled out.

When suture granuloma is suspected clinically, ultrasonography has been reported to be effective for diagnosis.⁴ Pathologically, the suture material is birefringent under polarised light.⁵ The correct diagnosis always depends on careful history taking and histopathological findings.

From our experience in this case, clinicians should remember the possibility of the presence of foreign body granuloma due to catgut embedding treatment in the differential diagnosis of skin conditions with this somewhat strange distribution.

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Competing interests None.

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